‘City-Regions and Critical Infrastructure: Meeting growth targets sustainably’

Phase 1

Final Report – Executive Summary

Report For Northern Way Sustainable Communities Team

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Executive Summary

1. City-regions are the extended territories across which core urban centres draw people for work and many different services including health, leisure, retail etc. The city-regional scale is supported by critical infrastructures with dense infrastructure networks of roads, rail, energy, water and waste disposal. Consequently city-regions also consume large resources of materials, power, and water and produce large quantities of solid and liquid wastes. The city-region is therefore an important functional entity based on flows of people, services and resources.

2. City-regions have emerged as a critical scale for understanding economic and resources flows in a more integrated way. Regions are generally too large to capture the most important functional linkages of everyday life. Local authorities are invariably too small as unit for engaging strategic decision making for economy, transport, waste, water, flooding and energy. Policy interest in the role of city-regions has grown as the reach of core cities has expanded beyond their formal boundaries and because their functionality make them increasingly appropriate for economic and infrastructural planning.

3. Understanding the reach of city-region boundaries is not simple – analyses of flow data have shown that boundaries are fuzzy and vary across functions, but, however defined their regions are extensive and have considerable significance for economic performance and infrastructural requirements. Although the city-regions are adopting their own working definition of their reach and relevant governance processes, many of the key infrastructure providers are NOT spatially organised at a city-regional scale. Most infrastructure providers are organised on a national and even international basis. Electricity, gas and water networks tend to be organised regionally. Despite the growing recognition of the importance of the city-regional scale for economic policy, the planning and coordination of many infrastructures are not sensitive to the city-regional scale.

4. The economic logic for a city-regional component to critical infrastructure has become more powerful as the economic performance of cities is recognised as being critical to the region within which they sit. Evidence has clearly shown that across the regions, city-regions out perform their regions. Now this has been recognised in the Northern Way Growth Strategy and regional strategies with growth prioritised in city-regions.

5. There are now three reasons for taking the relationship between city-regions and their critical infrastructure more seriously:

   a) The new accelerated growth ambitions of the Northern city-regions - as part of the wider priority of closing the gap between the performance of the Northern and southern regions - place challenging new demands on their critical infrastructures, where there are likely to be significant variations in infrastructural demands that may vary, in the case of energy, from growth of less than 1% in rural areas to over 5% in the city-regions.

b) These growth ambitions and significant variations in infrastructural demands pose a challenge. Many infrastructure providers are working on outdated assumptions that assume low levels and spatially uniform growth in demand for infrastructure. This means that infrastructure planning is locked into to old assumptions and investment strategies that will not meet the needs of the new city-regional growth agenda.

c) Increasingly city-regions are being faced with cascading targets, drivers and penalties to reshape changes in their infrastructure networks in ways which attempt to develop network sustainability. City-regions now have to face the issue of how they coordinate infrastructure and growth, whilst also reducing the environmental impacts of networks and city-regions.

6. An economic focus on city-regions makes sense and works with the logic of current government policy but is the infrastructure available to support the growth ambitions? The case for city-regions is largely accepted amongst region and Whitehall but NOT all infrastructure providers can demonstrate that their plans and investment priorities are sensitive to the economic growth potential of city-regions. Only in the case of the super region centred upon London is there evidence of an emerging strategy for managing and promoting growth and ensuring that infrastructure is prepared to support this growth.

7. What this reveals is the need for a systemic rather than a piecemeal response to the coordination and management of network and territorial priorities at the scale of the city-region. There is an urgent requirement to clarify the different constraints, time horizons and priorities for infrastructure and place. There are three steps involved in doing this. a) Developing a shared sense of vision or expectation about what is being sought in the organisation of infrastructure amongst the different stakeholders. b) Undertaking a clear assessment of the options and priorities for achieving this vision by articulating different trajectories towards the vision. c) Selecting an option for translating the vision into reality by shaping investment priorities, social change and technologies of the networks.

8. In the Manchester city-region (MCR), the current state of play, in terms of the coordination of territorial priorities and network infrastructures, is variable. In the short-term, across most infrastructure networks there is a 'temporary fix' until 2009/2010 that can 'sweat' infrastructural assets to meet growth priorities over that period. But there is a consensus that such fixes do not provide a longer-term strategy for managing territorial and network priorities.

9. There are serious problems in achieving the three steps towards coordination outlined above, although this varies across different infrastructure networks as illustrated in Figure 1. There are 5 key issues a) Coordination between territorial and network priorities is furthest developed in the area of transport where there is shared understanding of a common problem, joint development of options to deal with the common problem and the selection of a solution. b) In the waste sector there is shared understanding of the problem and a major study is now examining options prior to developing a city-regional strategy. c) In terms of flooding there are initial studies to formulate a shared understanding of a problem between network and territorial representatives. d) Yet there is however little shared understanding between territorial

and network representatives of the issues involved in water and energy networks despite the new challenges placed on these networks by the growth. e) Overall then there is a mixed picture, that requires further work, in order to establish a more effective platform and context through which greater coordination of network and territorial priorities can take place.

Figure 1 Manchester City-Region Comparative Summary

	Transport	Waste	Flooding	Water	Energy
Shared understanding of problem				**?**	**?**
Joint development of options			**?**		
Selection of solution		**?**			

10. Developing a coordinated set of responses to the challenges of growth ambitions and critical infrastructures should be made a key priority at a city-regional scale. Coordination - including the development of shared understanding, options and solutions to these challenges - would be enhanced immeasurably through the creation of a 'City-Regional Infra Lab' which brings together key territorial and network infrastructure representatives. This is particularly necessary given the status of the city-region as a 'new' scale of governance to fill existing governance gaps.

11. The 'City-Regional Infra Lab' would have three priorities: a) To develop mutual understanding of the organisation of critical infrastructures and city-regions. b) To develop mutual understanding of how the key infrastructure providers and territorial planners currently 'think' prospectively about the development of their systems and places. c) To develop a combined view of networks and territory - to understand where there are opportunities for the combined planning of networks and territory.

12. The critical priorities of the lab are three fold. a) In the short term there is a need for the city-region to ensure that the water and energy investment plans currently being prepared for the 2010-2015 period more adequately reflect the differences in growth rates across the region and more adequately prioritise investment in the city-region to ensure that they meet the planned growth targets in a programmatic and effective way. b) That the infrastructural requirements of the regional centre (covering 3 local authorities), where most of the new investment and jobs are planned, are considered in a programmatic way over a 25 year timescale. c. That work begins developing a more strategic approach to longer term questions around climate change, resource constraint and the economic opportunities for developing infrastructure within ecological limits.

13. It is necessary to view this emphasis on coordination in relation to a wider Northern perspective where there is a need to more effectively raise the question of coordinating infrastructures and city-region growth priorities with central government, regulators and utilities and with other regional and city-regional organisations. This coordination is also necessary in informing a strong corrective to the assumption that infrastructure is mainly an issue in London and the south-east and highlighting that there are serious questions about meeting the infrastructural requirement of the growth agenda in north city-regions.